

NOTES ON AUSTRALIAN *BOMBYLIIDÆ*,
 MOSTLY FROM THE MANUSCRIPT PAPERS OF THE
 LATE ARTHUR WHITE.

By G. H. HARDY.

(Read 6th August, 1923.)

The manuscript papers of the late Arthur White are in the possession of Dr. E. W. Ferguson, to whom I am indebted for permission to publish original matter contained therein. These manuscripts consist of (1) contributions that have already been published; (2) a very large mass of compiled notes and descriptions, interspersed amongst which are (3) a few pages of original material that have not been published, and that contain certain information based upon the examination of Walker's types in the British Museum.

Notes on the types of earlier described species are of utmost importance, but White limited his observations almost entirely to those characters that he could use in keys, and often a number of species included by him under a genus also include some he has never seen. It is difficult to judge how much of the keys is based on observation and examination of the type material, and how much on compilations from other works.

Owing to this confusion, White's manuscript cannot be compiled into a condition suitable for publication as an independent paper. I have therefore considered it advisable to publish White's records with my own, and to accept that which appears to me to be original, and within the probability of being correct.

The keys and notes taken from White's manuscript are indicated so that it can be readily understood how much of my paper is to be attributed to White's researches.

So far only manuscript containing *Bombyliidæ* and *Nemestrinidæ* has been found to contain unpublished matter, and from the information given in the former family, I find it necessary to amend my catalogue on the *Bombyliidæ* which was previously published in these Proceedings; some alterations which are the result of other researches are also included. White's key to the *Nemestrinidæ* is given elsewhere.

ANTHRACINÆ.

Genus HYPERALONIA, Rondani.

White's manuscript.—"Table of the Australian Species of *Hyperalonia*."

- | | |
|---|--------------------------|
| 1. Wings not spotted. | 2. |
| Wings spotted. | 3. |
| 2. Abdomen black, apex silvery; wings blackish with base yellow, tips hyaline. | <i>funesta</i> , Walker. |
| 3. Abdomen black with golden or white bands near the base; wings spotted with foremargins yellow. | |

bombyliformis, Macq.

= *Exoprosopa punctipennis*, Macq.

Wings with foremargins brown, with small spots below and towards base. *silvanus*, Fabr.

All the above were described under the genus *Anthrax*. *Hyperalonia argenticincta*, Bigot, is unknown to me, but I suggest that it is probably the same as *H. bombyliformis*, Macleay."

Observations.—*H. funesta*, Walker, is the same as my *H. satyrus*, Fabricius, but from White's key this is scarcely apparent. Apparently *Bibio silvanus*, Fabricius, was only known to White from the description, and he followed Walker's identification for this species, or possibly he took his characters in the key from the original description; I have already associated the species with the genus *Comptosia*, and do not see any reason to alter my opinion.

The distinguishing characters of the four described species as recognised by me are as follows:—

H. satyrus, Fabricius. A black species with only three pairs of white spots at the apex of the abdomen. A closely allied species (apparently undescribed) has an extra pair near the base.

H. bombyliformis, Macleay. A species with four fuscous spots on the wing. This is the only large species known to me with this character; the abdomen varies in the amount of silvery tomentum on it so that some unusually light forms may be mistaken for new species.

H. cingulata, v.d. Wulp. A species that has the wings with the anterior border for two-thirds the length, and an isolated blotch at apex of the second basal cell, fuscous.

H. simutifasciata, Macquart. A species with the same wing character as *H. cingulata*, v.d. Wulp, except that the whole of the second basal cell and the apex of the discal cell are fused with fuscous.

Genus EXOPROSOPA, Macquart.

White's manuscript.—"Table of Australian Species of *Exoprosopa*."

1. Abdomen shining blue. *marginicollis*, Gray.
Abdomen black or brown. 2.
2. Wings brown, with tips hyaline. *stellifer*, Walker.
Wings brown with apex very broadly hyaline and
with large hyaline indentations below.
adelaidica, Macquart.
Wings hyaline with the base, costa, and two oblique
stripes brown. *obliquifasciata*, Macq.
(unknown to me).

Exoprosopa laterimbata, Bigot, I cannot at present place. *E. punctipennis*, Macquart, is a *Hyperulonia*. *E. bicellata*, Macquart, is of doubtful position."

Observations.—I am not certain if *E. laterimbata*, Bigot, as identified by myself, is not a colour variation of *E. stellifer*, Walker; I have re-examined the specimens together with the variation of *E. stellifer*, and failed to find a satisfactory character other than the general black and brown abdomens respectively, to distinguish these species.

Exoprosopa marginicollis, Gray.

Anthrax marginicollis, Gray, in Griffith's Animal Kingdom, xv., Ins. ii. 1883, p. 780; pl. cxxv., fig. 6.

This species, new to my list, was described without a locality. Gray states that it "has the thorax green with a white line on each side; the body blue, the wings diaphanous with the anterior part and base black." In the Macleay Museum there are several specimens which are undoubtedly this species, but all are entirely metallic blue, except one, and that has a metallic green abdomen showing that either the blue and green are interchangeable, or the latter is a discoloration.

Genus ANTHRAX, Scopoli.

White's manuscript.—"Table of Australian Species of *Anthrax*."

1. Wings at least half brown. 2.
Wings hyaline with at most the costal margin
brown. 5.
2. Wings cut sharply in a nearly straight line into a
deep brown basal half, and a hyaline apical
half. *incisa*, Macq.

Wings cut sharply into a basal and hyaline half, the dividing line being greatly sinuated so that the prolongations of the brown encroach on the hyaline portion. *concisa*, Macq.

Wings with the base and costal half suffused with brown, which melts gradually into the hyaline portions without any distinct line of demarcation. 3.

3. Scutellum testaceous, abdomen with the sides testaceous. *obscura*, Macq.

Scutellum black. 4.

4. Abdomen with two white bands. *alternans*, Macq.

Abdomen with white spots. *commista*, Macq.

5. Wings completely hyaline, pubescence at sides of thorax yellowish white, small species. *minor*, Macq.=?*vitrea*, Walk.

Wings practically hyaline, but a little darker along the course of the closely adjacent mediastinal and subcostal veins; pubescence at sides of thorax fulvous, small to middle sized species. *nigricostata*, Macq.

Wings hyaline; yellow haired species; abdomen with black hairs on sides of fourth and fifth segments; large species. *flaveola*, Macq.

Wings hyaline, but largely suffused with brown from the base; large species. *albirufa*, Walk.

Wings hyaline with base and costal margin brown. 6.

6. Large species (usually about 12 mm.) 7.

Small species (5 to 8 mm.) 8.

7. The brown colouration on the foremargin never descends so far as the bifurcation of the radial and cubital veins, which are always clear; the black pubescence on sides of abdomen is confined to the third and subsequent segments, that on the second basal segment being pale yellow. *marginata*, Walk.=?*fuscicostata*, Macq.

The brown colouration of the foremargin covers the bifurcation of the radial and cubital veins; the black pubescence on the sides of the abdomen commences on the second segment. *velox*, White.

8. Pubescence at base of abdomen yellowish-white; wings rather dull. *simplex*, Macq.

(*A. pellucida*, Walker, belongs here, but I cannot say whether or not it is distinct.)

Pubescence at base of abdomen bright silvery white;
wings bright glistening. *argentipennis*, White.

The type of *A. tasmanica*, Walker, in the British Museum collection is in too bad condition for identification. The types of the following three species are not to be found in the B.M. collection:—

A. alterna, Walker, *A. resurgens*, Walker, and *A. subsensæ*, Walker, and it is impossible to say to what genera they belong."

Observations.—In a marginal note of a compiled note on *Anthrax lævis*, White wrote "Doubtfully an *Anthrax*"; in my catalogue I have suggested that it should come under the genus *Argyramaba*. Under this same genus I have placed *A. concisa*, Macquart.

A. tasmanica, Walker, is apparently a manuscript name, as I have failed to find any published reference to it, and White did not include any notes upon it under his compilations.

A. subsensæ is referred, in this paper, to the genus *Comptosia*.

GENUS CYTHEREA, Fabricius.

Glossita lipposa, Bigot, was placed by White in his manuscript under the genus *Mulio*, Latrielle, but he added in brackets "this species is unknown to me."

GENUS ARGYRAMOEA, Schiner.

White's manuscript.—"Table of Australian Species of *Argyramaba*."

- | | |
|---|--|
| 1. Wings mostly deep black. | 2. |
| Wings mostly hyaline. | 3. |
| 2. Abdomen black with apex silvery white. | |
| | <i>maculata</i> , Macq. = <i>australis</i> , Walk. |
| 3. Wings with base and basal part of foremargin brown, and three brown spots, there being one at apical end of discal cell. | <i>incompta</i> , Walk. |
| Like <i>incompta</i> , only without any spots at apical end of discal cell. | <i>semimaculata</i> , Walk. |

(All the above were described under the genus *Anthrax*.)"

LOMATHINÆ.

White's manuscript.—

“Genus COMPTOSIA, Macquart.

This genus was originally described by Macquart as possessing three submarginal cells, the type of the genus being *C. fuscipennis*, Macquart, from Australia, but given in error from Monte Video; afterwards, however, Macquart placed in this genus species possessing only two submarginal cells.

Table of Australian Species of Comptosia.

- | | | |
|----|--|--|
| 1. | Three submarginal cells. | 2. |
| | Two submarginal cells. | 7. |
| 2. | Wings brown, but the tips may be hyaline, and some hyaline spots may be present. | 3. |
| | Wings hyaline, with only the costal margin narrowly or broadly brown. | 6. |
| 3. | Scutellum red. | 4. |
| | Scutellum brown or black. | 5. |
| 4. | Wings dark brown with very distinct white tip; abdomen long, very large species. | |
| | <i>fuscipennis</i> , Macq.= <i>insignis</i> , Walk. | |
| | Wings entirely pale brown, or with tips indistinctly hyaline; abdomen short, large species. | |
| | <i>decedens</i> , Walk.= <i>basilis</i> , Walk. | |
| 5. | Wings completely brown on which are darker small brown spots; small species. | <i>serpentiger</i> , Walker. |
| 6. | Wings with foremargins very broadly and irregularly brown, narrowest in the middle, and with a long hyaline spot towards the tip; no brown spots present; small species. | <i>dorsalis</i> , Walk. |
| | Wings with foremargins brown, and many small brown spots; small species. | <i>plena</i> , Walker. |
| | Wings with foremargins broadly and irregularly brown, and four brown spots below; medium sized species. | <i>corculum</i> , Walk.= <i>tricellata</i> , Macq. |
| 7. | Wings entirely brown; large species. | |
| | <i>aurifrons</i> , Macq.= <i>extensa</i> , Walk. | |
| | Wings brown with the tips white. | 8. |
| | Wings hyaline with foremargins brown. | 9. |
| 8. | The brown portions of the wings containing hyaline spots. | <i>maculipennis</i> , Macq.= <i>ocellata</i> , Walk. |
| | <i>inclusa</i> , Walk.= <i>cognata</i> , Walk. | |

- The brown portion of the wing has the base and band across the middle hyaline. *tendens*, Walk.
- The brown portions of the wings contain no band or spots, but the base of the wing is hyaline, and the brown portion pale. *quadripennis*, Walk.
- The wings with the exception of the white tips are wholly dark brown; a rather small species. *præargentata*, Macleay. (*fasciata*, Fabr., according to my description, agrees with *præargentata*, Macl.)
- The wings like those of *præargentata*, but not so dark; a much larger species. *stria*, Walk.
9. Hyaline portion of the wing without any brown spots. 10. Hyaline portion of the wings with brown spots. 11.
10. Wings quite hyaline, except for narrowly brown costa. *sobricula*, Walk.
- Wings faintly tinged with brown, costa more broadly brown than in *sobricula*; rather large species. *sobria*, Walk.
- Costal half of wing suffused with brown; very small species. *partita*, Walk.
11. Abdomen very broad, with side-tufts of black and white hairs; wings with foremargins brown, and brown diffused spots below; large species. *patula*, Walk.=*plana*, Walk.=*ampla*, Walk.
- Abdomen narrow, without side-tufts of black and white hairs; wings with foremargins broadly brown, and four small brown spots below; medium sized species. *geometrica*, Macq.=*obscura*, Walk.

The following species I am not at present able to identify:—*C. bicolor*, Macq., and *C. fulvipes*, Bigot. Bigot's *Lygira rubricera* is probably a *Comptosia*."

Observations.—This part of White's manuscript is exceedingly valuable, in so far as it elucidates various descriptions previously found too inadequate to allow for a determination of the species. White's group *Comptosia* is equivalent to my *Lomatia*, under which I have placed it. I have divided the group into three genera, all of which need adjusting. My *Lomatia obscura* is now referred to *Comptosia* proper.

Oncodocera plana, Walker.

Antherax plana, Walker, List Dipt. B.M., ii., 1849, p. 272 and Ins. Saund. Dipt., 1852, p. 168.

Oncodocera plana, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 54.

Anthrax patula, Walk., *ibidem*, 1849, p. 273; and 1852, p. 168.

Oncodocera patula, Hardy, *ibidem*, 1921, p. 53.

Anthrax ampla, Walker, Ins. Saund. Dipt., 1852, pp. 167-185.

Oncodocera ampla, Hardy, *ibidem*, 1921, p. 53; pl. xvii., fig. 11.

Synonymy.—The above synonymy is given on the authority of White's manuscript.

Comptosia plena, Walker.

Observation.—If the characters given in White's key are accurate, my determination of *Anthrax plena*, Walker, is wrong, but a further comparison with Walker's description leads me to believe otherwise, and on this account I think it is possible that White extracted his characters from the description, and did not base his remarks upon specimens.

Comptosia fasciata, Fabricius.

Anthrax fasciata, Fabricius, Syst. Antl., 1805, p. 118.

Comptosia fasciata, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 57, which see for further references, and synonymy.

Anthrax præargentata, Macleay, in King's Narr. Surv. Austr., ii., 1832, p. 468. *Id.*, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 60, which see for further references.

Synonymy.—White probably based his identification of *Anthrax præargentata*, Macleay, upon a specimen identified by Walker. The whereabouts of the type is not known, so it seems advisable, for the time being at least, to accept White's statement "*fasciata*, Fabr. according to my description "agrees with *præargentata*, Macleay," to be the probable solution to Macleay's species. *A. fasciata*, Fabr., is not referred to elsewhere in White's manuscript, so the details of White's description are unknown.

Comptosia fascipennis, Macquart.

Comptosia fascipennis, Macquart, Dipt. Exot., ii., 1, 1840, p. 80; pl. fig. *Id.*, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 54.

Neuria lateralis, Newman, Entom., i., 1841, p. 220.

Comptosia lateralis, Hardy, *ibidem*, p. 58, which see for further references and synonymy.

Synonymy.—According to the information given by White in his manuscript, this name, *C. fascipennis*, Macquart, must be given the preference over *C. lateralis*, Newman. I do not know from where White could have secured his in-

formation, as apparently Macquart did not correct the original locality which was "? Monte Video."

Comptosia extensa, Walker.

Anthrax extensa, Walker, Ent. Mag., ii., 1835, p. 473; and List Dipt. B.M., ii., 1849, p. 269. *Id.*, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 60.

Neuria extensa, Newman, Entom., i., 1841, p. 221. *Id.*, Walker, Ins. Saund. Dipt., 1852, p. 167.

Comptosia aurifrons, Macquart, Dipt. Exot., suppl. 4, 1850, p. 113; pl. x, fig. 16. *Id.*, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 59.

Synonymy.—The above synonymy is probably correct; White stated it to be so in his manuscript, and the descriptions conform rather well.

Correction.—In my catalogue, in the note under *C. aurifrons*, for "front" read "face."

Comptosia basilis, Walker.

Anthrax basilis, Walker, List Dipt. B.M., ii., 1849, p. 267. *Id.*, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 60.

Neuria basilis, Walker, Ins. Saund. Dipt., 1852, p. 167.

Anthrax decedens, Walker, List Dipt. B.M., ii., 1849, p. 271. *Id.*, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 60.

Neuria decedens, Walker, Ins. Saund. Dipt., 1852, p. 167.

Synonymy.—The above synonymy is given on the authority of White's manuscript.

Note.—From White's key and the descriptions, I am able to recognise as this species three specimens which are from Perth, Western Australia, and which are in my collection; they were captured during November, 1912.

Comptosia subsencæ, Walker.

Anthrax subsencæ, Walker, Trans. Ent. Soc. Lon., iv., 1857, p. 144.

Lomatia? subsencæ, Hardy, Proc. Roy. Soc. Tasm., 1922, p. 52.

Status.—Previously I had overlooked the line above the description where Walker referred this species to his group 8. This reference places the species amongst the true *Comptosia*, and I am now able to identify it with a common Sydney species which was previously unnamed in collections.

Description.—A rather large uniformly blackish brown species with soft whitish pubescence laterally, and covering the whole ventral surface.

Male.—Eyes approximate; ocellar triangle with some rather long black hairs; antennal triangle black, with black hairs and some light tomentum, especially along the eye margins. The face is covered with shining white tomentum that is slightly stained yellow near the antennæ, which have abundant black hairs on the basal segment. The dorsal surface of the thorax is covered with brown tomentum; there are traces of white tomentum at the sides. About six bristles are situated anteriorly to the insertion of the wings, and a group of about six more are on the postalar callus, but the presence and number of these bristles depend largely upon the condition of the specimen. The abdomen is uniformly brown, with a trace of a margin of white hairs at the apex of each segment, but more intensified on the first. The legs are reddish brown. The wings are uniformly suffused brown with reddish brown costal margin and veins. There are only two submarginal cells, and the upper branch of the cubital vein has a stump-formed appendix.

Female.—The characters of the female are similar to those of the male, from which it differs in the separated eyes; the front is similar to the frontal triangle of the male in colour and pubescence, and the face shows more yellow, tending to golden, hairs below the antennæ.

Length: 12-15 mm.

Hab.—New South Wales; Blackheath, November, 1919, and Como, October, 1921.

Type.—The type, according to White's manuscript, is not to be found in the British Museum, and presumably it is lost. The specimens described above, a pair in my own collection, were taken at Blackheath on the 21st November, 1919. There are four other pairs taken in copula, and a further seventeen specimens in the series examined.

Note.—This species is similar to *C. extensa*, but differs in having white instead of yellow pubescence; the loop of the radial vein is not quite so long, and the presence of the appendix on the cubital vein will also serve as a more or less reliable distinguishing character. From *C. ducens* and *C. sobria*, it differs in the absence of the cross vein between the radial and cubital veins as well as in colour and other details.

SYSTROPINÆ.

Genus SYSTROPUS, Wiedemann.

Note.—Amongst White's manuscript there is the description of a species for which it was intended to give new generic and specific names. I have seen in the Melbourne Museum specimens of the same species and they are closely allied to and certainly cogenetic with my *Systropus clavifemorata*. White's description was based upon two male specimens sent by Mr. F. P. Spry, and were from Belgrave and Gippsland, Victoria. Names were not given in the manuscript, and although White stated "Gen. nov. allied to "*Systropus*," he did not give particulars of what he considered to be the characters of his proposed new genus whereby it can be distinguished from *Systropus*.

BOMBYLIINÆ.

White's manuscript.— (Here comes a key to the genera of the *Bombylius sensu lato*, which has already been published by White in these proceedings).

"Great variation is shown in the amount of curvature of the radial vein, but this appears to be a specific character only. I have examined all Walker's type species, except *B. areolatus*, but the following four species of Macquart are unknown to me, and I cannot at present place them:— "*Bombylius consobrinus*, *pencilatus*, *pictipennis* (should be easily identified by the markings of the wings), and *tenuicornis*, Macq. Of the two following, I have not the descriptions:—*B. australianus* and *rubriventris*, Bigot.

Genus DISCHISTUS, Loew.

The first posterior cell open; first basal cell much longer than the second basal cell.

Table of Australian Species of Dischistus.

1. Minute species, dark with whitish pubescence; radial vein straight. *antecedens*, Walker.
Larger species. 2.
2. Broad tawny species; radial vein much upturned; wings tinged yellow. *altus*, Walker = *pinguis*, Walker.
Yellow species; radial vein moderately upcurved; wings practically hyaline. *inmutatus*, Walker.

Observations.—Of Walker's nine species placed by me under the genus *Sisyromyia*, four are placed by White under *Dischistus*.

Dischistus antecessens, Walker.

Bombylius antecessens, Walker, List Dipt. B.M., ii., 1849, p. 293.

Sisyromyia antecessens, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 72.

Dischistus altus, Walker.

Bombylius altus, Walker, List Dipt. B.M., ii., 1849, p. 288.

Sisyromyia altus, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 72.

Bombylius pinguis, Walker, List Dipt. B.M., ii., 1849, p. 290.

Sisyromyia pinguis, Hardy, *ibidem*, 1921, p. 72.

Note.—The species labelled by me *Sisyromyia pinguis* in the Macleay Museum cannot be identical with Walker's species, if the information gathered from White's manuscript is correct.

Dischistus immutatus, Walker.

Bombylius immutatus, Walker, List Dipt. B.M., ii., 1849, p. 292.

Sisyromyia immutatus, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 72.

Genus *SYSTÆCHUS*, Loew.

White's manuscript.—"First posterior cell closed; first and second basal cells of almost equal length.

Table of Australian Species of Systæchus.

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| 1. Apex of abdomen with a tuft of dark brown pubescence on each side; abdomen with a brown band across the middle. | 2. |
| Apex of abdomen without side tufts of pubescence; abdomen not banded. | 3. |
| 2. Pubescence of abdomen pale brown. | |
| | <i>crassus</i> , Walk.= <i>platyrus</i> , Walk. |
| Pubescence of abdomen white. | |
| | <i>vetustus</i> , Walk.=? <i>sericans</i> , Macq. |
| 3. Pubescence of abdomen golden. | <i>distinctus</i> , Walk." |

Observations.—It is possible that *Choristus* will have to take the place of *Systæchus*, but as the type species is not known to me, I refrain from changing the names for the present. White seems to have overlooked *Choristus bifrons*, Walker, as his manuscript is without reference to it.

Systæchus australis, Guerin.

Bombylius australis, Guerin, Voy. Coq. (2) ii., 1830, p. 294;
pl. xx., fig. 4. *Id.*, Hardy, Proc. Roy. Soc. Tasm.,
1921, p. 75.

Note.—According to the description and illustration, this species could be either a *Bombylius* or *Systæchus*. Four specimens of the latter genus, from Sydney, agree with the curvature of the radial vein, and with the very long palpi, both of which characters in the illustration are unknown to me within the genus *Bombylius*. Other characters given in the illustration are not reliable, and are due to inferior drawing; even the colour is unsatisfactory, as the copy of the work in the Australian Museum shows the insect to be uniform, and dark in colour, whilst that in the library of the Linnean Society shows a brighter insect, with light stripes at the sides of the thorax.

I propose to utilise the name for four specimens (3♂♂, 1♀) which are in my collection, and were taken in the vicinity of Sydney. These specimens differ from the illustrations in colour, but agree with the description and the illustration moderately well, allowing for the inferior drawing, and they are the only specimens known to me in this or allied genera that have the very long palpi.

Genus SISYROMYIA, White.

White's manuscript.—"First posterior cell open; first and second basal cells of almost equal length.

Table of Australian Species of Sisyromyia.

- | | |
|---|---|
| 1. Apex of abdomen with a tuft of black pubescence on each side. | 2. |
| Apex of abdomen without side tufts of black pubescence. | 3. |
| 2. Yellow haired species. | <i>tetratrichus</i> , Walker. |
| 3. Abdomen with a yellow or white centre stripe. | 4. |
| Abdomen without a centre stripe. | 7. |
| 4. Centre stripe bright yellow. | |
| | <i>auratus</i> , Walk. = <i>crassirostris</i> , Macq. |
| Centre stripe white. | 5. |
| 5. Wings with the costal half brown, remainder hyaline; legs altogether red; abdominal pubescence dark tawny. | <i>decoratus</i> , Walker. |
| Wings hyaline, or with only the costa brownish, and not clearly divided as in <i>decoratus</i> . | 6. |

6. Bright red-haired species.

rutilus, Walk.=?*albicinctus*, Macq.

Fulvous haired species.

albivitta, Macq.

(Position doubtful, but probably belongs here).

7. Yellow haired species.

brevirostris, Macq.=*culabiatu*s, Bigot.

Type denuded, a small species from Swan River, resembling *brevirostris*, but costa more broadly brown, though not extending to the tip.

primogenitus, Walker."

Observations.—Four species, *pinguis*, *altus*, *antecedens*, and *immutatus*, Walker, which were placed in my catalogue under this genus, are now referred to *Dischistus*. White queried *B. albicinctus*, Macquart, to be the same as *B. auratus*, Walker, but Macquart states "abdomine albo fascialio . . . "quatrième segment de ce dernier a longs poils blancs au bord "antérieur . . . première cellule postérieure fermée . . .," all of which does not agree with White's suggestion.

Sisyromyia auratus, Walker.*Bombylius auratus*, Walker, List Dipt. B.M., ii., 1849, p. 289.*Sisyromyia auratus*, Hardy, Proc. Roy. Soc. Tasm., 1921, p. 71, which see for further references and synonymy.*Bombylius rutilus*, Walker, *ibidem*, p. 289.*Sisyromyia rutilus*, Hardy, *ibidem*, p. 72.

Synonymy.—It seems evident from White's description that *B. rutilus*, Walker, is one of the forms placed by me under the name *Sisyromyia auratus*, Walker. Possibly further study will result in the separation of this series into more than one species, but there are no described characters that will enable this to be done at the present time. I have recently detected some differences in the palpi that possibly may be of specific value, but the material available for study is neither sufficient in numbers nor good enough in condition to verify the points.

Genus BOMBYLIUS, Linnaeus.

White's manuscript.—"First posterior cell closed; first basal cell longer than the second.

Key to the Species of the Genus Bombylius.

1. Abdomen fringed posteriorly with white; wings with costal half brown, remainder hyaline.

hilovis, Walker.

Abdomen not fringed with white.

2.

2. Golden haired, very small species; abdomen without any black hairs. *chrysendetus*, White.
? *namus*, Walker.

Fuscous haired species. 3.

3. Face in male narrow, about the width of one eye; legs pale red. *fuscans*, Macq.
Face in male broad, about the width of two eyes; legs dark reddish black. *palliolatus*, White.

The type of *B. matutinus*, Walker, is in too bad condition for identification; the face is narrow, and it can possibly be *fuscans*. Another specimen named *matutinus* in the Museum collection is *B. palliolatus* and quite distinct from the type."

Observations.—White seems to have overlooked *B. viduus*, Walker, and he states that he did not see *B. aureolatus*, Walker. Both species have been recognised from their descriptions, and have been placed suitably in my catalogue.

No alterations can be made under the genus in my catalogue at present, but the discovery of a single specimen of *B. fuscans*, Macquart, collected in the vicinity of Sydney, makes it desirable that three names of described species should be reconsidered, namely, *B. matutinus* and *tenicornis*, Walker, and *B. consobrinus*, Macquart. *B. australianus*, Bigot, is undoubtedly the same as my identification of *B. tenicornis*, Macquart, under which Bigot's name was placed as a synonym.